UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/016,677	12/10/2001	Jeff Barnard	1285-0060US ALC-135717	2531

24587	7590	11/03/2005	

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EXAMINER
MURPHY, RHONDA L

ART UNIT	PAPER NUMBER
2667	

DATE MAILED: 11/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☐ Responsive to communication(s) filed on _____.
2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-30* is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) *1-30* is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on *13 March 2002* is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a) ☐ All   b) ☐ Some * c) ☐ None of:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____.
      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1.   Claims 8, 18, 19, 24 and 30 are objected to because of the following minor

informalities:

In claim 8, line 2, "byte" shall be replaced with "bytes".

In claim 18, line 10, "," shall be replaced with "; and".

In claim 19, line 9, a comma shall be inserted between "device" and "for".

In claim 19, line 11, "determine" shall be replaced with "determining".

In claim 24, line 2, "byte" shall be replaced with "bytes".

In claim 30, line 19, "," shall be replaced with "; and".

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3.   Claims 1 – 9, 11 – 25, 27 – 30 are rejected under 35 U.S.C. 102(e) as being

anticipated by Hosler et al. (US 2002/0009048).

Regarding claim 1, Hosler teaches a method of detecting a failure in a transmission medium of a data communications network link, comprising: sending a first set of data, in conjunction with a first source identifier (page 5, paragraph 46), from a first network access device (Fig. 2, ADM 210) to a second network access device (ADM 212) via a first transmission medium of a data communications link (medium between 210 and 212); receiving at said first network access device, via said first transmission medium of said data communications link, a second set of data in conjunction with a second source identifier (page 5, paragraphs 47-50); and, determining from said second source identifier that a transmission failure has occurred in said first transmission medium of said data communications link (page 5, paragraph 50; a change is detected, permitting the interface to detect when an APS switch has occurred).

Regarding claim 2, Hosler teaches a method wherein said step of determining comprises determining that said second source identifier does not equal a pre-specified value (page 5, paragraph 49).

Regarding claim 3, Hosler teaches a method wherein said step of determining comprises determining that said second source identifier equals said first source identifier (page 5, paragraph 47).

Regarding claim 4, Hosler teaches a method further comprising: sending a second set of data in conjunction with said second source identifier from a second network access device to said first network access device via a first transmission medium of a data communications link (page 5, paragraph 47-50).

Regarding claim 5, Hosler teaches a method further comprising: deactivating said first

transmission medium of said data communications link for the sending of data and

activating a second transmission medium of said data communications link (page 6,

paragraph 56).

Regarding claim 6, Hosler teaches a method wherein said data is transmitted via said

first transmission medium as a plurality of data packets, wherein each of said plurality of

data packets comprises a data portion and a header portion (page 3, paragraph 26).

Regarding claim 7, Hosler teaches a method wherein said source identifier is carried in

a portion of said header of said data packet (page 4, paragraph 39).

Regarding claim 8, Hosler teaches a method wherein said source identifier comprises

a plurality of bytes (page 5, paragraph 46).

Regarding claim 9, Hosler teaches a method wherein said data is transmitted as a

plurality of SONET packets (page 4, paragraph 39).

Regarding claim 11, Hosler teaches a method wherein the first network access device

comprises a first interface component coupled with said first transmission medium of

said data communications link (Fig. 2, interfaces 214 and 216), and a second interface

component coupled with a second transmission medium of said data communications

link (interfaces 218 and 220).

Regarding claim 12, Hosler teaches a method further comprising the steps, following

said step of determining of deactivating said first interface component (page 6,

paragraph 56); and, activating said second interface component (page 6, paragraph

56).

Regarding claim 13, Hosler teaches a method wherein said first and second interface

components are optical interconnect devices (page 3, paragraph 27), and said first and

second transmission mediums are optical fibers (page 3, paragraph 27).

Regarding claim 14, Hosler teaches a method of detecting a failure in a fiber optic

medium of a SONET communications link in a data communications network,

comprising: sending data from a first network access device (Fig. 2, ADM 210) to a

second network access device (ADM 212), in conjunction with a first source identifier

(page 5, paragraph 46), via a first fiber optic medium of the SONET communications

link (page 3, paragraph 27); receiving at said first network access device, via said first

fiber optic medium of said data communications link, a second set of data in conjunction

with a second source identifier (page 5, paragraphs 47-50); and, determining from said

second source identifier that a transmission failure has occurred in said first

transmission medium of said data communications link (page 5, paragraph 50; a

change is detected, permitting the interface to detect when an APS switch has

occurred).

Regarding claim 15, Hosler teaches the same limitations described in the rejection of

claim 2.

Regarding claim 16, Hosler teaches the same limitations described in the rejection of

claim 3.

Regarding claim 17, Hosler teaches the same limitations described in the rejection of

claim 12.

Regarding claim 18, Hosler teaches a method for providing failover protection in a data

communication link having a plurality of transmission media, comprising: sending data

from the first device (Fig. 2, ADM 210) to the second device (ADM 212), in conjunction

with a first source identifier, via a first transmission medium (page 5, paragraph 46);

detecting a source identifier in all data received by the first device via said first

transmission medium (page 5, paragraph 44); and, determining when the source

identifier of data received by the first device equals the source identifier of data sent by

the first device, that a failure has occurred in the first transmission medium (page 5,

paragraph 50) and deactivating said first transmission medium; and activating a second

transmission medium (page 6, paragraph 56).

Regarding claim 19, Hosler teaches an apparatus for providing failover protection in a

bidirectional data communication network, comprising: a first communications device

(Fig. 2, ADM 210), for receiving data and transmitting data with an identifying source

identifier (page 5, paragraph 46); a second communications device (ADM 212) for

receiving data; a first communications interface (interface 214 and 216), coupled with

said first communications device, for the relay of bidirectional data communication,

which is by default active (page 1, paragraph 10); a second communications interface

(interfaces 218 and 220), coupled with said first communications device, for the relay of

bidirectional data communication, which is by default inactive (page 1, paragraph 10); a

detector (router) coupled with said first communications device for determining the

source identifier of incoming data, and determining the source of the data, thus

determining that the first communications interface has failed (page 4, paragraph 38); a

controller (APS logic located within the router; page 3, paragraphs 32 and 40) coupled

with said first communications device for setting the first communications interface as

inactive and the second communications interface as active, in response to said

detector determining that the first communications interface has failed (page 3,

paragraphs 32 and 40).

Regarding claim 20, Hosler teaches the same limitations described in the rejection of

claim 2.

Regarding claim 21, Hosler teaches the step of determining comprises determining

that said source identifier equals a source identifier in data sent by the second

communications device (page 5, paragraph 47).

Regarding claim 22, Hosler teaches the same limitations described in the rejection of

claim 6.

Regarding claim 23, Hosler teaches the same limitations described in the rejection of

claim 7.

Regarding claim 24, Hosler teaches the same limitations described in the rejection of

claim 8.

Regarding claim 25, Hosler teaches the same limitations described in the rejection of

claim 9.

Regarding claim 27, Hosler teaches the same limitations described in the rejection of

claim 11.

Regarding claim 28, Hosler teaches the same limitations described in the rejection of

claim 12.

Regarding claim 29, Hosler teaches the same limitations described in the rejection of

claim 13.

Regarding claim 30, Hosler teaches a method for providing failover protection in a

bidirectional data communication network, comprising: activating a first communications

link for transfer of data from a first device to a second device (page 3, paragraph 32);

sending data from the first device to the second device, together with a first source

identifier (page 3, paragraph 32; page 5, paragraph 46); sending data from the second

device to the first device, together with a second source identifier (page 5, paragraphs

47-50); detecting at the first device the source identifier of all data received by the first

device (page 5, paragraph 44); detecting at the second device the source identifier of all

data received by the second device (page 5, paragraph 44); and, determining, either

when the source identifier of data received by the first device equals the source

identifier of data sent by the first device (page 5, paragraph 50), or when the source

identifier of data received by the second device equals the source identifier of data sent

by the second device, that a failure has occurred in the first communications link (page

5, paragraph 50), and deactivating the first communications link; and activating a

second communications link (page 6, paragraph 56).

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5.   Claims 10 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Hosler et al. (US 2002/0009048).

Regarding claims 10 and 26, Hosler teaches a method wherein said source identifier

is transmitted as a component of the J1 byte of the header portion of each of said data

packets. Although Hosler fails to explicitly disclose use of the c2 byte, Hosler further

discloses other path overhead fields are capable of carrying the source identifier

(identifying signature; page 5, paragraph 42).

Therefore, it would have been obvious to one skilled in the art to utilize the c2

byte of the header portion to transmit the source identifier, since various overhead fields

are capable of transmitting the source identifier.

Conclusion

6.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

*Ikeda et al. (US 6,625,115) discloses a self-healing network, method for

transmission line switching thereof, and transmission equipment thereof.

*Heeren et al. (US 6,311,288) discloses a system and method for virtual circuit

backup in a communication network.

*Reid et al. (US 4,646,286) discloses a communications system with protection

switching and channel identities.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rhonda Murphy whose telephone number is (571) 272-3185. The examiner can normally be reached on Monday - Friday 8:00 - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on (571) 272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Rhonda Murphy
Examiner
Art Unit 2667

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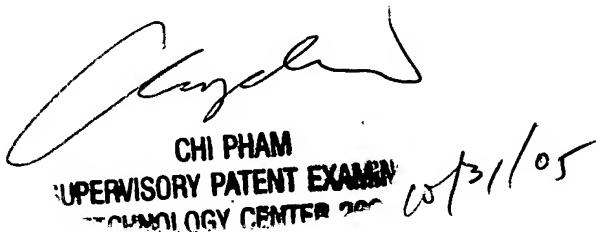
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